

ABSTRACT

A valve assembly is disclosed that provides for complete or partial fluid pressure balancing across the valve, and can be used for reducing valve actuation forces in order to employ electric actuation. The valve assembly includes a valve housing having a valve chamber, a flow passageway, and a piston chamber. A valve member is disposed in the valve housing and is movable along a valve axis. The valve member is subjected to a first pressure, which urges the valve in a first direction. To counteract this force, a piston integral with the valve member is slidably arranged in the piston chamber. One side of the piston is subjected to this first pressure to provide a counterbalancing force. A pressure passage fluid communication of the first pressure between the flow passageway and said one side of the piston.